

**Chickamauga and Chattanooga
National Military Park**

National Park Service
U.S. Department of the Interior



THE FULLER GUN



COLLECTION

The Fuller Gun Collection contains 346 examples of military long arms used in America. This explains the basic mechanisms and uses of the weapons displayed here. Start on the left.

European explorers and colonists brought the Matchlock musket to America (737). The Matchlock is fired by lighting priming powder with a burning wick or match. This flash explodes the main powder charge in the barrel, propelling the bullet forward. Wet weather and a need for secrecy or sudden firing prompted the development of better muskets. The expensive and less sturdy wheellock muskets use a more reliable sparking mechanism, similar to a cigarette lighter. Flintlocks, popular by 1700, create sparks by striking flint against steel (615). Pulling the trigger releases the cock (a vise which holds the flint) which hits the steel, causing a shower of sparks which fall into the priming powder.

In 1841, the government adopted percussion arms. These substituted a percussion compound that exploded when struck with a hammer, for the flint and steel. The compound was on a roll of paper, like a cap pistol, or in a copper cap. Edward Maynard invented the tape primer, which advanced automatically.

Bullets and powders were loaded down the muzzle or into the Breech. Muzzleloaders involved dropping a charge of powder and bullet down the muzzle. They were packed into the firing chamber by a ramrod. In breechloaders, the powder and bullet were inserted directly into the breech and held in place by the breechblock.

Muskets have smooth barrels. They are lighter and longer than rifles and better suited to the addition of bayonets. Rifles have spiral grooves in the barrel to make the bullet spin and go straighter, but they are slower to load.

The tighter a bullet fits in the barrel, the more accurate the aim. Minie balls are conical bullets with a hollow base. The explosion of the main powder charge expands the bullet to fit the barrel exactly. The government adopted minie balls in 1855. A good shooter could shoot 3 shots a minute and hit a 6' x 6' target at 600 yards.

American colonists needed guns for survival, for food and self defense. The Indian tribes and the French encouraged the development of shot had to be effective and reloading rapid, because of limited ammunition and the speed and accuracy of bow and arrow shooting.

German and Swiss immigrants to eastern Pennsylvania around 1700 included a number of experienced gunsmiths. Until then, colonists had imported guns and their lock mechanisms. The varied ammunition and replacement parts caused problems in wartime. At the beginning of the American Revolution, committees of safety in the individual colonies contracted with local gunsmiths to copy the British Brown Bess Musket (669). This gave some uniformity to the colonists' arms.

The Bandoleer held pre-measured powder charge. The incendiary pitch ring was soaked in rosin, lit and thrown, while the hand grenade is an early form of the Molotov Cocktail. Calthrops were left on the ground to slow an enemy's advance; one prong always points up.

From France, came a lighter musket called the Charleville (595), which was copied, starting in 1795 in the new federal armories in Springfield, Massachusetts and in Harper's Ferry, (now West) Virginia. To arm the state militia, Virginia established its own armory, which began production in 1802. The armory was used for storage from 1820 to 1860 (820).

Private contractors supplied the government and state militia with Flintlocks, allowing minor variations from the national armory standards. Eli Whitney attempted to mass-produce one of the earliest standard rifles with interchangeable parts (821)

From 1835 to 1861, the government had to supply muskets to some Indian tribes so they could better supply themselves with game. The Indians preferred the shorter, British-style muskets.

One of the earliest rifles was the muzzle loading Kentucky rifle (687) reportedly used by Lewis and Clark in their western exploration (833). Harper's Ferry began producing them in 1803 (450). By 1819, state militia was ordering the common rifle, the next model from contractors. The price for a contract rifle around 1825 averaged an expensive \$14.50. The Plains rifle was shorter and made to fire in rapid succession without careful aiming as settlers shot Indians and buffalo from horseback at a moments notice. The last muzzleloader was the 1864 model.

Breechloaders were tested under the severe conditions of westward expansion and the Civil War to find a fast, strong, simple, non-sticking and non-jamming breech action. The Hall breechloader (460) was used in the

Seminole and Mexican wars. It was quick to fire but leaked gas and flame and the Breechlock never was large. The Jenks mule-ear Breechloader (584) had a sliding breech bolt that its hammer moved sideways instead of up and down.

Henry Ward Beecher, a New York preacher, raised money for abolition. The money was spent on Sharps*, which were sent to anti-slavery settlers in Kansas and Missouri called "Breechers Bibles" (548) Sharps proved to be the sturdiest weapons of the war, along with Burnside's and Smith's (aisle 6).

British arms; for example, Enfields and Whitworths, were used by both sides in the Civil War. Although it was the preferred weapon of the Confederacy. British armories had adopted and extended the improvements made in the U.S. Whitworths were exceptionally accurate when used with the hexagonal bullets designed for them (803). Greene guns used an oval bore (579)

Spencer repeaters* were one of the most effective gun of the Civil War (605), but not widely distributed to troops for fear ammunition would be wasted. At Chickamauga, they were responsible for the strength of Colonel John T. Wilder's brigade in Glenn Field, while most of the Union right scattered in retreat.

Multishot rifles were an alternative to repeaters. Colt created a rifle similar to its revolver (474). Cochran also made a rifle with a revolving cylinder (827). They were heavy, leaked gas and flame, and sometimes fired all chambers at once. The Lindsay rifle shot one or two bullets depending on how far you pulled the trigger (466)

The first magazine repeating rifle was built in 1854, but was not widely used. A side-loading magazine rifle designed by Krag and Jorgenson in 1892 was large and had poor sights (499). A box magazine placed under the action of the rifle was used in 1903 Springfield (684). The collection ends with Military arms of World War I.

The Fuller Gun Collection was donated to the National Parks Service in 1954 by Claude and Zenada Fuller. They had acquired a huge collection over the course of their lives and Claude had become one of the country's foremost experts on military blackpowder shoulder arms, particularly the Springfield Firearms. Mr. Fuller wrote several books on the topic, notably firearms of the Confederacy, the Whitney Firearms and the Rifled Musket. Claude Fuller passed away in 1957.